

The study of Digoxin efficacy in children with congenital Heart Disease with left to right shunt without heart failure in buali hospital in Ardabil at 1389.

Background:

According to the heavy Cost of digoxin syrup, it's vast side effects and complications and it's narrow therapeutic window and regarding that digoxin is prescribed with no clear indication, there was a need to perform a study in order to evaluate digoxin's efficacy in infants and childrens with congenital heart left to right shunt without heart failure.

Methods: In this clinical trial study we studied a total of 80 infants and childrens with congenital left to right shunt without heart failure among 1 month and 14 years of age visited by specialist in office or Buali hospital of Ardabil at 1389. Cases were divided into two equal groups, one recieved digoxin and the other $ZnSO_4$ as placebo for 6 months. Patients were surveid during these 6 months and required information and data was collected with the carfully designed questionnaire.

Results: The specified consequences & results show that the weight differences shunt size differences average patients & hospitalized during treating, average of absence chest wheezing during treatment and also absence of weakness or hydrosis while nursing in two versions groups were not that much different, but on the other hand the average of nursing well or the percentage of children with a healthy general condition also the reduction of pulmonary vein pressure in 6 months treatment in $ZnSO_4$ group which is a placebo in comparison to the digoxin was higher.

Conclusions: This experiment clearly revealed that digoxin did not differ considerably with $ZnSO_4$ as placebo in treating left to right shunt in infants and childrens with left to right shunt without heart failure. Considering the narrow therapeutic window of digoxin, the probability of it's toxicity and also digoxin insufficiency in treating left to right shunt without heart failure, it is highly suggested not to use digoxin in these cases.

Keywords: digoxin, left to right shunt, $ZnSO_4$, toxicity